

Application No. 10/716,190
Filed: November 18, 2003
TC Art Unit: 1732
Confirmation No.: 4133

REMARKS

Claims 1-3 are currently pending. Claims 1-3 have been rejected under 35 U.S.C. § 102(b) and claim 1 has been rejected further under 35 U.S.C. § 112, first paragraph. Claim 1 has been amended and claims 4-10 have been newly added. Accordingly, after entry of this amendment, the pending claims will be claims 1-10. The Applicants respectfully traverse the grounds for rejection based on the above amendments and the following reasons.

SECTION 102(b) REJECTIONS

Claims 1-3 have been rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent Application Publication Number 2002/0132075 to Friend, et al. and/or as anticipated by Patent Number 6,464,908 to Friend, et al. (collectively, the "Friend References"). The Applicants respectfully traverse these rejections in view of the above amendments and for the reasons provided below.

Claim 1 has been amended to recite that, the first thermoplastic resin is injected into the mold first, then the second thermoplastic resin is injected into the first thermoplastic resin. See, e.g., Specification, page 4, lines 16-27; page 7, lines 23-28. This, in effect, causes the second resin

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to be at least partially surrounded by the first resin. Neither of the Friend references teaches, mentions or suggests injecting the second thermoplastic resin into the first thermoplastic resin to control the thickness of the skin layer. Indeed, Patent Number 6,464,908 merely discloses incorporating carbon fibrils into a matrix using reaction injection molding (RIM), sheet molding compounds (SMC) or bulk molding compounds (BMC) techniques. There is no mention of first and second thermoplastic resins or injecting the second thermoplastic resin into the first thermoplastic resin.

Likewise, Publication Number 2002/0132075 discloses mixing different concentrations of carbon fibrils with a first layer and a second layer of polymeric material. The purpose for the different concentrations is to provide two polymeric layers with different surface resistances for electrical protection. See, e.g., Friend, para. 0039. As shown in Figs. 1 and 3, the layers are formed one on top of the other. Thus, the second thermoplastic resin is not injected into the first thermoplastic resin.

Accordingly, the Applicants maintain that the Friend references do not anticipate claims 1-3 under 35 U.S.C. § 102(b) and the rejections should be withdrawn.

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SECTION 112, FIRST PARAGRAPH REJECTION

The Examiner has also rejected claim 1 under 35 U.S.C. § 112, first paragraph for failing to comply with the enablement requirement. The Examiner asserts that subject matter of claim 1 was not described in the specification to enable one skilled in the art to practice the invention. Moreover, the Examiner maintains that it is unclear how adding carbon nanomaterial to the core layer can control skin layer thickness.

In view of the above amendments, the grounds for rejection are believed to be moot. Further, the Applicants respectfully submit that the invention is enabled in the Specification. Particularly, on page 7, lines 28-31,

The first resin, which is decreased in viscosity by adding the carbon nanomaterial thereto, is pressed and stretched by the resin pressure of the second resin, so that the thickness of the skin layer is formed thinner or thicker.

Hence, the more viscous second resin, which is injected into the first resin to form the core layer, presses and stretches the less viscous first resin, which forms the skin layer. Furthermore, between line 34 on page 7 and line 6 on page 8,

it is also possible to control the thickness of the skin layer by lowering the viscosity of the second resin by similar means.

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Accordingly, the Applicants believe that the claims are in
condition for allowance and the rejections should be withdrawn.

The Examiner is encouraged to telephone the undersigned
attorney to discuss any matter that would expedite allowance of
the present application.

Respectfully submitted,

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